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AB

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/646,680	11/04/2000	Hideo Yamanaka.	SON-1782/KOI	5089

7590 12/21/2001

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Washington, DC 20036

EXAMINER

HASSANZADEH, PARVIZ

ART UNIT	PAPER NUMBER
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1763

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DATE MAILED: 12/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-5

**Office Action Summary**

Application No.

09/646,680

Applicant(s)

YAMANAKA ET AL.

Examiner

Parviz Hassanzadeh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 January 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-45 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-22, drawn to a method.

Group II, claim(s) 23-45, drawn to an apparatus.

The inventions listed as Groups II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: they correspond to various species, the special technical features thereof are different.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Species 1 - Embodiment 1, pages 18-35, Figs. 1-6;

Species 2 - Embodiment 2, pages 35-36, Fig. 7;

Species 3 - Embodiment 3, page 36, Fig. 8;

Species 4 - Embodiment 4, pages 36-37, Fig. 9;

Species 5 - Embodiment 5, page 37, Figs. 10-11;

Species 6 - Embodiment 6, pages 37-38, Fig. 12;

Species 7 - Embodiment 7, pages 38-40, Figs. 13-16;

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Species 8 - Embodiment 8, pages 41-48, Fig. 17;

Species 9 - Embodiment 9, pages 41-48, Figs. 18-19;

Species 10 - Embodiment 10, pages 48-49, Fig. 20;

Species 11 - Embodiment 11, pages 49-50, Fig. 21;

Species 12 - Embodiment 12, pages 50-53, Fig. 22;

Species 13 - Embodiment 13, page 53, Fig. 23.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

species 1, claims 23, 24, 30, 31, 36, 38, 39, 42, 43 and 45;  
species 2, claims 34, 35;  
species 3, claims 32, 33;  
species 4, no claim;  
species 5, claim 33;  
species 6, no claim;  
species 7, claim 37;  
species 8, no claim;  
species 9, claims 25-29;

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species 10, no claim;  
species 11, claims 25-27;  
species 12, claims 25-29;  
species 13, claims 40, 41, 44;

The following claim(s) are generic: 23.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

Species 1 is a film forming apparatus including a heated catalyzer disposed between a susceptor and an electrode, and a device for applying an electric field of not higher than a glow discharge starting voltage between the susceptor and the electrode;

Species 2 includes a charged particle irradiation device arranged near the susceptor;

Species 3 includes an acceleration mesh electrode;

Species 4 includes an arrangement of one mesh electrode being provided between a catalyzer and a showerhead and one acceleration mesh electrode being provided between a catalyzer and a substrate;

Species 5 includes an acceleration electrode having a porous or a mesh structure;

Species 6 includes an air passage hole in the susceptor;

Species 7 includes the arrangement of the substrate being provided under the showerhead and thus allowing the use of normal pressure type devices;

Species 8 includes a multi-chamber process unit;

Species 9 includes the voltage being produced by superimposition of a high-frequency voltage onto a DC voltage (RF/DC);

Species 10 includes a charged particle irradiation device in the species 9;

Species 11 includes species 9 wherein the substrate is arranged under the showerhead for allowing the use of normal pressure devices;

Species 12 includes the voltage being produced by superimposing a low-frequency voltage onto a DC voltage (AC/DC);

Species 13 includes the employment of various reaction material gases and product thin film materials.

A telephone call was made to Ronald P. Kananen on 12/12/01 to request an oral election to the above restriction requirement, but did not result in an election being made.

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Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Parviz Hassanzadeh whose telephone number is (703)308-2050. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Mills can be reached on (703)308-1633. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

Parviz Hassanzadeh  
Examiner  
Art Unit 1763

p. h.  
December 19, 2001

  
GREGORY MILLS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700